

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



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Applicant's or agent's file reference P208175PCT DVR/do		<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/NL 03/00517	International filing date (day/month/year) 15.07.2003	Priority date (day/month/year) 15.07.2002	
International Patent Classification (IPC) or both national classification and IPC F03D1/04			
Applicant STICHTING ENERGIEONDERZOEK CENTRUM NEDERLAND et al			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.  
  
☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  
  
 These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:
 

I	<input checked="" type="checkbox"/>	Basis of the opinion
II	<input type="checkbox"/>	Priority
III	<input type="checkbox"/>	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	<input type="checkbox"/>	Lack of unity of invention
V	<input checked="" type="checkbox"/>	Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	<input type="checkbox"/>	Certain documents cited
VII	<input type="checkbox"/>	Certain defects in the international application
VIII	<input type="checkbox"/>	Certain observations on the international application

Date of submission of the demand  13.02.2004	Date of completion of this report  03.09.2004
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Avramidis, P  Telephone No. +49 89 2399-7317  

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/NL 03/00517**

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17))*):

**Description, Pages**

1-21 as originally filed

**Claims, Numbers**

2-31 as originally filed

1 received on 16.07.2004 with letter of 15.07.2004

**Drawings, Sheets**

1/15-15/15 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY  
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International application No. **PCT/NL 03/00517**

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-31
	No: Claims	
Inventive step (IS)	Yes: Claims	1-31
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-31
	No: Claims	

2. Citations and explanations

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/NL03/00517

**Re Item V**

**Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

The present invention relates to a method and an assembly by means of which energy can be extracted from flowing fluid according to the preamble of claim 1 and claim 17 respectively.

Optimisation of a multirotor wind energy system has been discussed, for example in XP008022904 (D1).

Wind farms are expensive and therefore it is important that the production of the farms is high in order to justify the cost. Due to interference the production of the subsequent wind turbines is lower compared to the upstream turbines (shadow loss).

The object of the invention is to reduce the shadow effect or interference which causes the shadow loss and consequently increase the production of the wind farm.

With the characterising features of claim 1, i.e. that guiding devices feed fast flows that are not too far away from the assembly through the wind farm, the production of the whole wind farm can be increased.

None of the prior art documents which have become known to this Authority discloses all the features of independent claim 1.

Furthermore, the solution to the above mentioned problem in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) since it is not taught or suggested by the prior art documents.

Claims 2-16 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

Independent claim 17 claims the corresponding assembly and claims 18-31 are dependent on claim 17 and as such they also meet the requirements of the PCT with respect to novelty and inventive step.

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International application No. PCT/NL03/00517

Therefore, the present application meet the requirements of Article 33(2) and (3) PCT, because the subject-matter of claims 1-31 is new and involves an inventive step.

**Further remarks:**

The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

16. 07. 2004

(100)

New claim

1. Method for extracting energy from a flowing fluid, in particular from (sea)water  
5 and/or wind flows, using an assembly of devices positioned close to one another,  
characterised in that a guiding device of said assembly is set with respect to said  
fluid flow in such a way that as a result forces with a component perpendicular to  
the undisturbed direction of flow are exerted, such that fluid with higher kinetic  
energy or with lower kinetic energy, compared with the normal situation in which  
10 said force component is lacking, is guided through an energy-extracting device of  
the assembly.